

## Remarks

The applicants appreciate that the Examiner is not contesting the previous response to the rejection for obviousness of various claims over Rabenko, and in response to the latest rejection of the independent claims for anticipation by a new reference, US 6650624 (Quigley), the following comments are made:

No amendments are warranted. Quigley shows in fig 68, a data packet too long for a single time slot being split and transmitted in two consecutive slots separated by a guard band. Col 63 describes this as follows:

"As shown in FIG. 68, a data packet 410 which is too large to fit within a first time slot 491a is fragmented by an appropriate device such as a cable modem such that a first portion 410a of the data packet 410 is placed in the first time slot 491a and the remaining or second portion 410b of the data packet 410 is placed within the second time slot 491b of the upstream channel 491.

For example, if the maximum size of each time slot 491a, 491b is 256 symbols and the data packet 410 conforms 300 symbols, then 256 symbols of the data packet 410 are put into the first time slot 491a and the remaining 44 symbols are put into the second time slot 491b."

Even if this shows the claim features of the head-end station being arranged to allocate a number of consecutive time slots to each subscriber station, each subscriber station having framing apparatus arranged to frame a packet directly without segmentation of the packet, and synchronisation apparatus arranged to send the frame to the head-end station during an allocation of consecutive time slots, there is no suggestion of the additional feature of claim 1 of sending the frame "with a guard band determined without using ranging".

The closest that Quigley seems to come is in col 63 following the above passage, where it continues:

"This placing of the data packet 410, whether fragmented or not, within the allocated time slots 491a and 491b prevents undesirable collisions among a plurality of such data packets transmitted by a corresponding plurality of cable modems upon a given frequency channel. The use of guard bands 209 in the upstream channel 491 tend to further mitigate the occurrence of such undesirable collisions by providing an unused time space between each time slot of the upstream channel 491 so as to accommodate differences in synchronization between the cable modem termination system and the various cable modems."

The Examiner appears to imply that he regards this part of Quigley as showing that the guard band is determined without ranging, but nowhere does it indicate or suggest that ranging can be dispensed with, nor the advantages of so doing. The Examiner gives no reasons in support of this crucial implication that ranging is dispensed with in Quigley. A skilled person would see no reason for this implication. Quigley refers repeatedly to ranging and ranging messages, for example at the end of col 53:

"The maintenance interval 418 of the MAP 420 is used to facilitate housekeeping functions such as ranging, as discussed in detail above." and at the top of col 58 there is explicit disclosure of "changing guard times...", and there are further examples in the description of fig 86, at the bottom of col 72. Hence, in the absence of any discussion of the simplification advantages obtained by dispensing with ranging, a skilled person would assume that the guard bands 209 would be determined to be sufficiently long to ensure that they meet their stated purpose of accommodating sync differences, by reference to ranging, since that is the essential purpose of ranging.

Hence claim 1 is not anticipated by Quigley. Claim 1 cannot be obvious over Quigley as there is no incentive in Quigley to lead a skilled person towards the distinctive feature of claim 1 as discussed above. The other references cited by the Examiner are not cited as showing this distinctive feature and do not

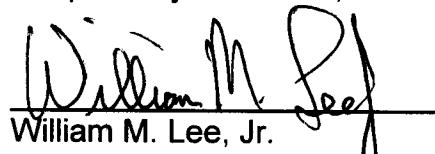
alter the reasoning set out above, hence claim 1 is not obvious over any combination of the cited references.

All the claims now have corresponding distinctive features, or are dependent on such claims, and so are all allowable for the same reasons.

All the points raised have been dealt with, all the claims are submitted to be allowable and reconsideration is requested.

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Respectfully submitted,



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